TOPICAL APPRAISALS

This plan describes how the Ames Laboratory conducts topical appraisals. Comments and questions regarding this plan should be directed to the contact persons listed below:

Mark Murphy
Chief Operations Officer
311 TASF

Shawn Nelson
ESH&A Assistant Manager
G40 TASF

1.0 APPROVAL RECORD

- Reviewed by: Document Control Coordinator (Amy Tehan)
- Approved by: Quality Assurance Manager & ESH&A Manager (Tom Wessels)
- Approved by: Chief Operations Officer (Mark Murphy)
- Approved by: Associate Laboratory Director for Sponsored Research Administration (Debra Covey)
- Approved by: Assistant Director for Scientific Planning (Cynthia Jenks)
- Approved by: Chief Research Officer (Duane Johnson)
- Approved by: Interim Deputy Director (David Baldwin)
- Approved by: Interim Director (Tom Lograsso)

The official approval record for this document is maintained in the Training, Documents & Records Office, 151 TASF.

2.0 REVISION/REVIEW INFORMATION

The revision description for this document is maintained by Shawn Nelson.

3.0 PURPOSE AND SCOPE

The Laboratory provides support for the development and implementation of the Laboratory's safety, safeguards and security, cyber security, emergency management, and business and operations programs. Responsibilities for development and oversight of these programs reside in the Laboratory's Environment, Safety, Health & Assurance (ESH&A) office, Safeguards and Security (S&S) Program, Cyber Security Program (within Information Systems office), the Emergency Coordinator (within Facilities and Engineering Services office), the Chief Operations Officer and the functional managers of the operational activities. Periodic validation of compliance with the Laboratory and the Department of Energy's requirements is accomplished through multiple assessment mechanisms including the performance of topical appraisals.

4.0 Roles and Responsibilities

The roles and responsibilities for implementation of the Topical Appraisals program are as follows:

4.1 Laboratory Director – The Laboratory Director is ultimately responsible for ensuring that employees are provided a safe and healthy work place, secure work practices, adequate emergency responses and effective business and operations practices. Therefore the Director supports the various program functions and numerous surveillance activities including topical appraisals.

4.2 **Program Directors / Department Managers** – Program Directors / Department Managers shall provide departmental specific information upon request and be responsible for the completion of any corrective actions identified from a topical appraisal within their program or department. They may also be asked to perform a topical appraisal of a specific operation.

4.3 **Group / Section Leaders** – Group / Section Leaders shall provide group-specific information upon request and be responsible for the completion of any corrective action identified from a topical appraisal within their group or section.

4.4 **Safety Coordinators / Representatives** – Safety Coordinators / Representatives shall serve as points-of-contact on ESH&A related topical appraisals and, at the direction of the Program Director / Department Manager or Group / Section Leader, facilitate correction of any identified deficiencies.

4.5 **Assistant Computer Protection Program Managers (ACPMs) and System Administrators** – ACPMs and System Administrators shall serve as points-of contact on cyber security related topical appraisals and, at the direction of the Program Director / Department Manager or Group / Section Leader, facilitate correction of any identified deficiencies.

4.6 **Employees** – Ames Laboratory employees shall participate in the Laboratory's safety, security, emergency programs and business and operational activities by performing work in accordance with established practices and procedures; employees shall interact with supervisory personnel, and program personnel on safety, security, emergency, business and operational issues, including topical appraisals.

4.7 **Chief Operations Officer (COO) and Environment, Safety, Health & Assurance (ESH&A) Manager –** The COO and ESH&A Manager are responsible for coordination of the proposed topics list with Ames Site Office and communication of agreed-upon list to ESH&A, Safeguards and Security, Cyber Security, and Emergency Management specialists and functional managers. These specialists are responsible for scheduling, performing, documenting, filing reports, and communicating results of topical appraisals.

5.0 PREREQUISITE ACTIONS AND REQUIREMENTS

The specialist or manager conducting the appraisal shall provide advance appraisal information and requests to the appropriate personnel including topics to be covered, appraisal methodology, and timelines for performance and completion of the topical appraisal.

6.0 PERFORMANCE

Topical appraisals are performed on a periodic basis by program specialists or managers. The frequency and rigor of appraisals are suggested by the specialist after consideration of statutory or DOE requirements, walk through data, injury/illness data, lessons learned information, employee safety concerns and / or other "feedback" information. Each topical appraisal is documented via a written report that is kept on file in the ESH&A Office.

7.0 APPRAISAL TOPICS

Appraisal topics will be selected through discussions between the ESH&A manager, the Chief Operations Officer and the DOE Ames Site Office Facility Representative.

A partial list of potential subjects is provided below:

INDUSTRIAL SAFETY
- Confined Space Entry
- Scaffolding Safety
- Fall Protection
- Powered Industrial Vehicles (forklifts)
- Stop Work Authority
- Means of Egress and Walking & Working Surfaces
- Vehicle Mounted Elevating & Rotating Work Platforms
- Personal Protective Equipment
- Machine Guarding
- Hand Tools and Portable Power Tool Safety
- Compressed Air
  - Welding, Cutting and Brazing Program
  - Electrical Safety & Electrical Related Work Practices
  - Lockout /Tagout
  - Eye Washes and Safety Showers
  - Ladder Safety
  - Hoisting and Rigging
  - Working Alone
  - Forklift Safety
  - Elevated Work – Platforms and Roof Work
  - Excavation and Trenching Program

HEALTH PHYSICS
- Review of Personnel Monitoring
- Review of X-ray program
- HP oversight of maintenance activities
- Review of Radiological Work Permit program
- Regulatory Requirements
- Administrative Controls
- Authorization Process
- Training Requirements
- Procurements of Radioactive materials and Radiation Producing Devices
- Radioactive Waste
- Personnel Exposure
- Emergency and Decontamination Procedures
- ALARA
- Radioactive Contamination Control
- Posting and Labeling for Radiological Control
- Sealed Radioactive Source Accountability and Control
- Materials Control and Accountability

INDUSTRIAL HYGIENE
- Magnetic Fields
- Management of Mercury
- Precursors for Improvised Explosive Devices
- Use of Cyanide-Containing Compounds

- Hazard Communication (Right to Know) Program
- Chemical Hygiene Program
- Exposure Assessments/Medical Surveillance
- Ergonomics
- Respiratory Protection
- Bloodborne Pathogens
- Asbestos
- Lead
- Laboratory Chemical Hood Testing Program
- Lasers
- Radio Frequency (RF) Radiation-generating Devices
- Ultraviolet (UV) Light-Generating Devices

ENVIRONMENTAL PROTECTION, Environmental Management System (EMS)
- Environmental Management System (EMS) Effectiveness
- Ozone Depleting Substances
- Hazardous Waste Generator Training
- Emission Points/Sources
- National Environmental Policy Act Management
- Protection of Groundwater and Surface Water Quality and Compliance with Spill Reporting
- Protection of Air Quality and Ozone Depleting Substances
- Waste Management
- Environmental Monitoring and Surveillance Program Management

FIRE PROTECTION
- Fire Prevention
- Hot Work
- Fire Detection
- Bypassing a Detection System
- Fire Annunciation
- Fire Suppression
- NFPA 704 (Iowa Responders Right to Know)
- Emergency Action Plans and Postings
- NFPA 75 Standard for Protection of Information Technology Equipment
- NFPA 110 Standard for Emergency and Standby Power Systems
- NFPA 232 Standard for Protection of Records
- NFPA 601 Standard for Security Services in Fire Loss Prevention
- NFPA 730 Guide for Premises Security

SAFEGUARDS AND SECURITY
- Foreign Visits &Assignments (FV&A)
- Property Protection
- Foreign Travel
- Export Control
- Badge Program
- PPS Post Orders
- Discrepancy Reports
- PPS Tours

CYBER SECURITY
- Cyber Security Incident Response
- Wireless Systems Management
- Sensitive Information Encryption Processes

EMERGENCY MANAGEMENT

- Notification of Injuries and Fatalities
- Emergency Notification System
- Accountability Protocol

Quality Assurance (QA) / Contractor Assurance System (CAS)

- Evaluation of effectiveness of organizational structure, functional responsibilities, levels of authority, and interfaces.
- Evaluation of management processes, including planning, scheduling, and providing resources for work.
- Evaluation of use of feedback information and data analyses/trending to identify opportunities for improvement.
- Evaluation of corrective action effectiveness.
- Evaluation of causal analysis scope and effectiveness.
- Effectiveness of document control processes.
- Adequacy and effectiveness of records management processes.
- Effectiveness of training and qualification programs to enable personnel to safely and efficiently perform assigned work.
- Effectiveness of procurement activities to obtain items that meet requirements and perform as specified, to evaluate and select appropriate suppliers, and to ensure that approved suppliers continue to provide acceptable items and services.
- Effectiveness of engineering and software design activities, based on sound principles and practices and including user requirements and interfaces.
- Effectiveness of work process controls, including proper use, maintenance, and calibration of instructions, procedures, items and equipment.
- Effectiveness of inspection and testing activities, appropriate criteria and appropriately calibrated and maintained equipment.
- Effectiveness of manager's efforts to identify and correct barriers to work objectives.
- Evaluation of effectiveness of independent assessments by teams with sufficient authority and freedom from line and technical qualification for the areas assessed.
- Timeliness and effectiveness of communication between the corporate parent, the Laboratory, and the DOE Site Office.
- Effectiveness of risk-based oversight decisions.
- Effectiveness of performance metrics.
- Effectiveness of management to provide reasonable assurance that mission objectives will be met and contract requirements fulfilled; that site workers, the public, and the environment are protected; and that operations, facilities, and business systems are effectively run and continuously improved.
- Effectiveness of contractor's governance system to define acceptable performance outcomes, to provide oversight of contract performance, and to hold contractor management accountable for these outcomes so that the contractor may provide assurance to DOE.
- Effectiveness of Contractor Assurance System (CAS) to build trust between DOE and its contractor, to ensure alignment between the DOE and contractors in accomplishing and addressing mission needs, and to allow DOE to optimize its oversight function to leverage the processes and outcomes of its contractor(s).

BUSINESS AND OPERATIONS

- Accounting
- Budget
- Facilities and Engineering Services
- Human Resources
- Information Services
- Intellectual Property
- Internal Audit
- Legal Support
- Occupational Medicine
- Procurement and Property Management

- Public Affairs
- Sponsored Research

8.0 Appraisal Process

After selection of appraisal topics the audit lead will submit a paragraph description outlining the scope of the topic and identifying several specific activities, processes, or organizational units to review as a sampling of implementation if applicable. Upon approval of the topic scope statement by the ESH&A manager, assistant manager, or the chief operations officer the appraisal process can be initiated.

9.0 Report Format

Report content and format will be as follows:

***1.0 Scope**: The scope of the appraisal will be clearly defined and should be inclusive of the original, approved scope (described above).*

***2.0 Dates**: The primary dates of the appraisal will be given including dates of observations and reports.*

***3.0 Methodology**: The methods used to conduct the appraisal will be presented and will include, at a minimum, the following elements:*

***3.1 References** – A review of all applicable regulatory or institutional requirements will be conducted including:*

- *Federal, State, and Local laws*
- *DOE directives*
- *Requirements detailed in the Laboratory's Contract, or identified through elements of the Laboratory's Integrated Safety Management System, Environmental Management System, Worker Safety and Health Program, Quality Assurance Program, Contractor Assurance System and Integrated Safeguards and Security Management System*

***3.2 Program Documentation** – All applicable programmatic documentation (policies, procedures, guides, handouts, form, etc.) will be reviewed.*

***3.3 Training** – A review of all institutional training course(s) to ensure adequacy and training records to ensure compliance.*

***3.4 Personnel Interviewed** – A list of all personnel interviewed, both internal and external will be provided.*

***4.0 Assessment Results & Discussion**: List the assessment results in clear and concise text followed by a brief discussion of the significance of each. Indicate corrective actions to be undertaken and the corresponding ALCATS tracking identification code (obtained*

from the Laboratory's industrial safety specialist, Shawn Nelson, nelsons@ameslab.gov, 294-9769.) The results should be listed under the following headings:

***4.1 Strengths**: Examples of mature processes or activities that have consistently demonstrated the ability to meet expectations, or a process or activity that efficiently and effectively facilitates and integrates processes, activities, and resources.*

***4.2 Noteworthy Practices:** A positive observation, based on objective assessment data, or a particular practice, procedure, process, or system considered so unique or innovative enough that other organizations within the Laboratory might find it beneficial. Mere compliance with mandatory requirements is not considered to be a noteworthy practice.*

***4.3 Findings:** A finding is a determination of deficiency pertaining to implementation of a requirement based on a recognized inadequacy or weakness. Findings are categorized as levels 1, 2, or 3. This categorization is necessary to identify the degree of management formality and rigor required for the correction, tracking to closure, and trending of findings. Finding categories are as follows:*

***Level 1 Finding**: Determination of deficiency of major significance that warrants a high level of attention on the part of line management. Typically these reflect a gap in addressing requirements or a systemic problem with implementing requirements. If left uncorrected, this level of finding could negatively impact the Laboratory's mission.*

***Level 2 Finding**: Determination of deficiency that represents a non-conformance and/or deviation with implementation of a requirement. Multiple determinations of deficiency at this level, when of a similar nature, may be rolled-up together into one or more Level 1 findings. Level 2 findings can be further qualified by noting the significance of the issue as: Moderate, conditions that could cause minor injury or minor environmental or programmatic impact; or High, conditions that could cause a severe injury or significant environmental or programmatic impact.*

***Level 3 Finding**: Determination of deficiency where it is recognized that improvements can be gained in process, performance, or efficiency already established for meeting a requirement. This level of finding should also include minor deviations observed during oversight activities that can be promptly corrected and verified as completed.*

Documentation of findings should include the statement of the specific requirement (e.g. regulatory citation, Laboratory policy, etc.), the description of a programmatic breakdown (if applicable), and objective evidence demonstrating the deficiency.

***5.0 Overall Conclusions:** Provide a brief narrative summarizing the overall conclusions of the appraisal.*

***6.0 Attachments:** List documents that were reviewed/updated that are included in hard copy file.*

10.0 POST PERFORMANCE

10.1 Corrective Actions

Deficiencies and opportunities for improvement identified will be addressed according to Procedure 10200.030, *Corrective Action Development Tracking and Verification*, tracked in ALCATS (Ames Laboratory Corrective Action Tracking System), categorized for reportability according to Plan 40000.001, *Event Reporting Program*, and be reviewed as part of the annual trend analysis according to Procedure 10200.041, *Trend Analysis of ES&H, S&S, Cyber Security and Emergency Management Issues*.

10.2 Recordkeeping

Upon completion of the topical appraisal report and review by the ESH&A manager, assistant manager and / or the Chief Operations Officer, the specialist is responsible for ensuring that an electronic copy of the report is sent to the Laboratory's industrial safety specialist: nelsons@ameslab.gov. The Laboratory industrial safety specialist will file an electronic copy of the appraisal report in the appropriate topical appraisal folder in the ESH&A Admin/Topical Appraisals directory, and a printed copy in the appropriate ESH&A file.